Smith, 1985 Data Set 56

Reference: Smith, G.W., 1985, Geology of the deep Tuscaloosa (Upper Cretaceous) gas trend in Louisiana: Gulf Coast Section of the Society of Economic Paleontologists and Mineralogists Foundation Fourth Annual Research Conference Proceedings, June

Author's affiliation: Chevron USA, Inc.

Age: Late Cretaceous

Formation: Tuscaloosa Formation

Structural Setting: Downdip Tuscaloosa-Woodbine Trend, Louisiana, United States

Location: Rigolets and Ft. Pike Fields, Orleans and St. Bernard Parishes, Louisiana, United States

Wells: four Chevron wells: Rigolets Club, S/L 6647-3, S/L 6651-2, S/L 6651-3

Depth range: 13,775 – 16,269 feet.

Depositional Environment: Pro-delta, with a water depth exceeding storm wave base and possibly much deeper. … The sandstone sequence in the Fort Pike-Rigolets area occurs in the lower part of the Lower Tuscaloosa section. Deposition, therefore, may have taken place during the time of maximum shelf edge relief.

Lithology: very fine to medium-grained sandstone

Alteration: "Kaolinite is the abundant clay. It occurs as discrete particles and is not nearly as detrimental to permeability as pore-lining and pore-bridging clays. Quartz overgrowths are common and significantly reduce intergranular pore space."

Whole rock mineralogy by x-ray diffraction: See Table 5 of reference. Quartz ranges from 75 to 84%, kaolinite from 6.2 to 15.2%, plagioclases from 2.5 to 5.3%, illite-mica from 1.5 to 3.4%, dolomite around 3%, and chlorite at trace levels. Values are averages for grain size classes.

Production: gas.

Core measurement conditions: unstressed, porosity by summation of fluids.

Data entry: manual entry from Figure 38 of Smith, 1985.